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HUNGARIAN WEATHER REPORTS, SEPTEMBER 1952 - APRIL 1953

/Comment: Reports on weather conditions in Hungary are appearing less frequently in periodicals. The monthly periodical Termeszet es Technika discontinued the publication of weather reports in August 1952. At the same time, the semimonthly Magyar Mezogazdasag changed from semimonthly to monthly weather reports.

These developments appear to constitute a trend, begun in February 1952 (see 00-W-24217), toward reducing to a minimum the dissemination of weather information. Some of the daily newspapers also carry weather reports; these are, however, very brief and general and do not reveal data affecting the development of crops.

Included in the following report is part of an article on the January floods in western Europe, appearing in the March 1953 issue of Termeszet es Technika, contains a general discussion of the weather conditions which prevailed in Hungary during the autumn of 1952.

All degrees are given in centigrade. Numbers in parentheses refer to appended sources./

27 September - 27 October 1952

The period under review was characterized by changeable temperature and abundant precipitation.

Diurnal temperatures were generally average and occasionally above average during the first half of the period, and mostly below the average during the second half. In the last days of September it was approximately 20 degrees and rose to 25-27 degrees 1 October. The temperature, however, gradually dropped to 10-12 degrees by 12 October and fluctuated between 10 and 14 degrees during the next 8 days. On 20 October, it rose again to 20-24 degrees as a result of incoming mild air currents.

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The nocturnal temperature was generally mild during the first half of the period, but gradually cooled off in the latter half. In the last days of September and the first week of October, the minimum was above 5 degrees and on several nights as high as 10 degrees. After 8 October, frost of 1-2 degrees below zero appeared in many areas throughout the country. By 19 October the frost had spread over most of the country, with the temperature dropping to 2-4 degrees below zero in western Transdanubia and to 1-2 degrees below zero elsewhere. After 20 October, the nights became extremely mild. On the night of 25 October, the minima were 11-14 degrees.

Soil surface frost occurred in several areas every night between 5 and 20 October, with the exception of the 14th and 16th. On several nights, including the 10th and the 18th to the 20th, the frost was countrywide. The low point occurred during the morning of the 19th, when 3-6 degrees below zero were reported throughout the country.

Precipitation was abundant. On 27 September, the rain was countrywide and on the 29th and 30th over half of the country received precipitation. During October, rain fell throughout the country on 5 days (5th, 11th, 14th, 23d, and 26th). Rain fell in half of the country on 11 days (1st, 2d, 7th, 8th, 12th, 13th, 15th, 20th, 21st, 22d, and 25th). The daily rainfall amounted to 20-30 millimeters in large areas on a few days including 27 September and, especially, 11 and 14 October.

Total precipitation during the period 1-26 October was over 50 millimeters everywhere, except in northwestern Transdanubia and along the southern border of the Trans-Tisza region. Most of the country received 60-100 millimeters, while many large areas in middle and southern Transdanubia and the eastern part of the northern mountain region received over 100-120 millimeters.

In terms of averages, precipitation was plentiful throughout Hungary, with the exception of the southern boundary of the Great Plain. By 26 October, over 90 percent of the country had received 100-150 percent of the average rainfall for the entire month.(1)

28 October - 25 November 1952

During this 4-week period the weather was somewhat cooler than average. Precipitation during the entire period was frequent and abundant.

Diurnal temperatures were relatively high at the beginning and end of the period and largely below the average during the rest of the period. In the last days of October, the air warmed to 15-18 degrees, or 3-5 degrees above the average. Following a substantial drop in the temperature on 31 October, the daily maximum during the first week of November flucturated around 10 degrees. Cool temperatures continued; during the middle of the month, noontime temperatures were between 1 and 4 degrees. On 18 November, southern air currents brought milder weather, and on the 20th the temperatures rose to 10-14 degrees. This was followed, however, by another drop in temperature.

Nocturnal cooling varied parallel with diurnal temperatures. During the last days of October, the air, at a height of 1½ meters, cooled off to 5-10 degrees. After 1 November, however, frost increased and spread over the entire country by the middle of the month. The temperature dropped generally to 2-4 degrees below zero and even as low as 8 degrees below zero along the western border of the country. Around 20 November, the frost disappeared for a few nights, then reappeared and again became countrywide on the 24th. Soil surface frost appeared sporadically up to 5 November and later spread throughout the country. During several nights, the temperature dropped to 5-7 degrees below zero and even as low as 11 degrees below zero along the western border.

Precipitation continued to be abundant. On 30 and 31 October, it rained heavily throughout Hungary. The daily precipitation exceeded 20 millimeters in large areas. As a result, precipitation for the month was above the average in all regions. It was over double the average in approximately 40 percent of the country, especially in large areas of Transdanubia, the Great Plain, and practically everywhere in the northern mountain region.

The distribution of the precipitation which fell between 1 and 25 November was not uniform. Western Transdanubia received the least precipitation. Thus, Gyor, Veszprem, Vas, Zala, and Somogy megyek received only 10-20 millimeters and the eastern megyek of Transdanubia 40-60 millimeters. The largest volume of rain fell in the northern mountain region (up to 130-140 millimeters) and east of the Tisza (up to 100 millimeters).

In Transdanubia, precipitation was generally short of the average and the eastern megyek of the Trans-Tisza region received less than half of the average rainfall. In eastern Transdanubia, the northern mountain region, and the Great Plain, approximately two thirds of the total area of Hungary, the precipitation during 1 - 25 November was above the average for the entire month. Precipitation in large areas of the northern mountain region and east of the Tisza was over twice the average for November.

The sequence of precipitation was uniform. With the exception of 2 days, it rained every day from 1 to 25 November in various parts of the country. On 7 days (3d, 7th, 11th, 15th, 17th, 20th, and 21st) the rain was countrywide and on 9 days at least half of the country received precipitation.

After the 10th, especially around the 15th, precipitation fell largely in the form of snow. Owing to recurring snowfalls, many parts of the lowlands received a thin cover of snow. In the mountainous areas, the snow cover had a thickness of 60-80 centimeters. However, the snow lasted only a short time and had melted everywhere by the end of the period under review.(2)

26 November - 6 January 1953

The weather was largely mild and rainy during the 6-week period under review.

Mild weather continued during the last days of November. After 1 December, however, the temperatures fell to 1-3 degrees below zero at the noon hours in a few localities, but between 5 and 10 December, a larger number of areas were affected. After 12 December, the weather became milder and the temperatures rose to 5-6 degrees. The first week of January was also mild.

Nocturnal temperatures generally failed to fall below the averages for the period. With the exception of 1 or 2 days, frost occurred every night, although mostly in small areas. Soil surface temperatures around 10 December fluctuated between 10 and 14 degrees below zero in the northern megyek and between 5 and 10 degrees below zero elsewhere.

Precipitation was extremely plentiful. Due to the abundant rainfalls during the last days of November, total precipitation for the month in 80 percent of the area of the country was above average. Only western Transdanubia received less-than-average precipitation.

Precipitation in December, with the exception of the northwestern corner of Transdanubia, was over 50 millimeters throughout the country and amounted to as much as 100-140 millimeters in certain areas. In general, precipitation

was above the average everywhere, with the exception of Magyarovar and Sopron. The largest part of Transdanubia and all of the northern mountain region and the Great Plain received over 200 percent and the northeastern megyek over 300 percent of the average.(3)

1 January - 23 February 1953

The extremely abundant autumn and early-winter rains contineud during the first third of January, but were followed by dry weather. The temperatures were relatively mild.

Diurnal temperatures throughout the country were 1-2 degrees below zero for a few days after 12 January. On most days, however, they were higher and rose to 12-14 degrees during the last days of the month. The first half of February resembled January. In the second half of the month diurnal temperatures reached 12-14 degrees.

On most nights the frost was countrywide. In the second half of January, nocturnal temperatures declined to 10-12 degrees below zero in the western and eastern megyek. Countrywide frost of 12-14 degrees below zero set in around 10 February.

Soil surface frost not exceeding 10 degrees below zero was countrywide during a few nights. The lowest temperatures in January, recorded on the 21st, were 14-16 degrees below zero in the Trans-Tisza region and 16-18 degrees below zero in western and southern Transdanubia. It was 20 degrees below zero at Papa. Around 10 February, the temperature fluctuated between 14 and 16 degrees below zero along the western and eastern borders. During the severest frosts, the crops had a snow cover of varying thickness.

Precipitation in January totaled 25-50 millimeters in most of Transdanubia, 30-60 millimeters in the Great Plain, and 50-80 millimeters in the northern mountain region. In general, precipitation was below the average in Transdanubia. It was more abundant east of the Danube, amounting to 200 percent of the average in the largest part of the northern mountain region. During February, most of the country received 10-30 millimeters, and the southern areas, 30-50 millimeters of rain. In general, precipitation was above the average in the southern part of the Great Plain and exceeded the average for the entire month in the largest part of the country.

Most of the precipitation fell in the form of snow. A snow cover extending over the entire country formed after 10 January, but did not last long, melting and re-forming several times by 22 February. Its thickness was over 10-15 centimeters in a few areas, but generally did not exceed 3-5 centimeters, especially in the lowlands. After 20 February, the snow disappeared quickly.(4)

24 February - 11 March 19[illegible]

The 2-week period under review was predominantly windy and dry. The temperatures showed considerable fluctuation; it was generally mild in the daytime and frosty at night.

Diurnal temperatures were frequently well above the average, although the weather turned colder toward the end of the period. On 23 and 24 February, the thermometer registered 11-14 degrees. As a result of northern and northwestern cold winds, the diurnal warming decreased and noon temperatures in the eastern part of the Great Plain fluctuated between 3 and 5 degrees for a few days. The diurnal temperatures rose on 3 and 7 March, to 10-15 degrees in many areas, except the eastern megyek, and as high as 17-19 degrees along the western border. After 7 March, however, the maximum temperature receded to 5 degrees in most parts of the country.

There was considerable nocturnal cooling, generally, which increased in severity even after relatively mild days. During the 2 weeks, frost occurred every night in various parts of Hungary and covered the entire country on several nights. At a height of 1½-2 meters, the mercury often dropped to 3-5 degrees below zero throughout the country and during a few nights, as low as 7 degrees below zero in the western, northeastern, and eastern megyek.

Soil surface frost was countrywide on most nights and ranged from 5 to 8 degrees below zero. On 5 March, nocturnal temperature at soil surface dropped as low as 11 degrees below zero in various parts of the northern mountain region and the Great Plain.

There was little precipitation and for several days it was entirely absent. On 28 February and 4 March, however, approximately three fourths of the country received precipitation ranging from 5 to 10 millimeters per day.

The dry weather was favorable for the performance of spring agricultural work.(5)

12 - 27 March 1953

During the period under review, mild diurnal temperatures and nocturnal frost predominated.

The diurnal temperatures rose during the period. On the 13th and 14th, the noon temperatures stood at 1-2 degrees below zero along the western and eastern borders. Subsequently it rose to 10-12 degrees and by the 20th, as high as 15-16 degrees. The warming continued and on the 25th and 26th it reached 20-21 degrees, or 8 degrees above the average.

During the nights, frost developed throughout the country even after mild diurnal temperatures. A few days before the 15th, at a height of 1½-2 meters, nocturnal temperatures fluctuated generally between 5 and 10 degrees below zero, dropping to 10-12 degrees below zero along the western border. Later, the severity of the nocturnal frost decreased and temperatures generally rose to 1-2 degrees.

Soil surface temperatures throughout the country fluctuated between 10 and 15 degrees below zero until 15 March and rose to 5-8 degrees below zero between the 15th and 24th. During the nights between the 24th and 26th they rose to 1-3 degrees below zero in practically all parts of the country.

Precipitation was extremely sparce. Rain fell only on the 12th and 13th. On the 12th, the rain was countrywide, but generally amounted to less than 5 millimeters. On the 13th, a few areas in Transdanubia received 5-10 millimeters of precipitation. After the 14th, the weather was entirely dry.

Due to the dry weather, the upper strata of the lowlands lost moisture. However, since the lower strata were saturated with moisture, this condition was generally favorable to spring plowing and planting work. Nevertheless, the crops now need rain.(6)

28 March - 10 April 1953

The weather was generally warm and dry during the period under review.

Diurnal temperatures were well above the average and the warmer temperatures of mid-March continued to increase. In the last days of March, noon temperatures stood at 20-23 degrees. At the beginning of April they rose as high as 25 degrees in southern Transdanubia, or 8-10 degrees above the average. After 5 April, the temperatures receded several degrees.

At first, the nocturnal cooling was severe but later lost its intensity. By the end of March and beginning of April the temperature, measured at a height of 1½-2 meters, dropped to 2 degrees below zero throughout the country. On 29 March, it was 4 degrees below zero in Hajdu-Bihar and Szabolcs-Szatmar megyek. After 3 April, cloudiness reduced nocturnal radiation and temperatures fluctuated between 6 and 10 degrees for a few nights.

Prior to 3 April, frost occurred on the soil surface in numberous large areas. On the night of 28 March, its intensity reached 6 degrees below zero in parts of the northern mountain region and the northern part of the Trans-Tisza region, and even 8 degrees below zero around Debrecen. Between 4 and 8 April, the frost disappeared. It reappeared, however, on the 9th in the northeast, with the thermometer registering 1-3 degrees below zero.

Little precipitation fell during the period. Its volume between 28 March and 10 April totaled 10 millimeters only in a very few localities (Tokaj, 15 millimeters; Szombathely and Sopron, 13; Magyarovar, Szentgotthard, and Pecs, 12; and Mezokeresztes, 10 millimeters). In general, precipitation was less than 50 percent of the average. Approximately 90 percent of the country received less than one fourth and three quarters of the country less than one tenth of the average precipitation for the period. On 9 April, countrywide rains resulted in precipitation of 5-10 millimeters, especially in Transdanubia. These rains were extremely beneficial to the crops.(7)

11 - 27 April 1953

During the period under review, warmer-than-average weather predominated, with more precipitation than in the preceding weeks.

Diurnal temperatures were frequently above the average. By the 11th, they declined to 10-15 degrees as a result of rainfalls during the preceding days. On the 15th, however, noon temperatures again rose to 18-20 degrees. This was followed by changeable weather, but diurnal air warming again reached 20-23 degrees by the 25th.

Nocturnal cooling was often severe. Prior to the 15th, the temperature at a height of 1½-2 meters dropped to 2 degrees below zero throughout the country and even as low as 4 degrees below zero around Miskolc.

The soil surface frost was countrywide during the period. The thermometer registered 4-6 degrees below zero throughout the country, and even 7-9 degrees below zero around Miskolc and in the areas of the Trans-Tisza region which are most exposed to frost damage (Turkeve, Debrecen).

Precipitation fell on several days. The countrywide rain which fell on 9 April increased on the 10th and large areas received rain even on the 11th. After a few days' interval, it rained again on the 16th and 17th throughout the country. During the following week, the rainfall was spotty, but on the 25th and 26th it rained moderately in the entire country. Part of the rain was accompanied by thunderstorms. Hail was reported at Nagykonyi on the 11th and at Siklos on the 25th.

The amount of precipitation which fell between 1 and 27 April exceeded 50 millimeters in a few storm centers. Kozephidegveg received 78 millimeters, Barch, 67, Nagyogohid 57, Koszeg 54, Lovaszpatona and Kalocsa 53, Szigetvar and Lengyel 51, and Gyor and Szeged 50 millimeters. In addition, the rainfall in several areas of Transdanubia and the Trans-Tisza region amounted to 30-40 millimeters. On the other hand, in the northern mountain region and north of the Trans-Tisza region less than 10 millimeters of rain fell.

In general, precipitation was above the average in only a few of the above storm centers. In the southern part of the Great Plain and in large areas of Transdanubia, precipitation during 1 - 27 April exceeded the average for the month. On the other hand, over half of the total area of the country received less than 50 percent and the northern part of the Great Plain received less than 25 percent of the average rainfall for the period.

The rains were beneficial to the development of the crops, especially of spring plantings.(8)

* * *

Distribution of Precipitation, Autumn 1952

/Volume and distribution of precipitation are given in appended Figures 1-5./

After the summer drought, the rain began to fall in September, when precipitation in practically all parts of Hungary equaled or exceeded the average for the month. The precipitation increased in October and amounted to two and even three times the average in most areas, excepting the northwestern corner of the country. In November, precipitation equaled the October volume in the eastern megyek, but was largely below the average in Transdanubia.

Average precipitation during the above 3 months increased progressively from west to east. Thus, while precipitation was approximately average in northwestern Transdanubia, it was 2-2½ times the average in the eastern part of the Great Plain and along the Tisza River. In the northern mountain region and the Great Plain, the volume of rainfall during the autumn of 1952 exceeded that of the rainiest autumn on record.

In December, the rains continued in even greater volume and several large areas received precipitation amounting to 250 percent of the average for the month.

The discrepancy in the volume of rainfall between Transdanubia and the eastern region of the country is illustrated in Figure 5. In the diagram a comparison is made between Magyarovar, which was one of the driest western localities, and Szarvas, one of the wettest in the east. Magyarovar received approximately average precipitation month by month. St Szarvas, on the other hand, precipitation was above the average every month and increased progressively during the autumn.

The rainy period which had begun in September lasted until 10 January 1953. During these 4 months and 10 days, more rain fell in the northern mountain region and the Great Plain than during the rainiest 6 winter months of the last 50 years.(9)

SOURCES

1. Magyar Mezogazdasag, Vol VII, No 21, 1 Nov 52 (Article signed by Istvan Kulin)

2. Ibid., Vol VII, No 23, 1 Dec 52 (Article signed by Istvan Kulin)

3. Ibid., Vol VIII, No 1-2, 16 Jan 53

4. Ibid , Vol VIII, No 5, 1 Mar 53 (Article signed by Istvan Kulin)

5. Ibid., Vol VIII, No 6, 16 Mar 53

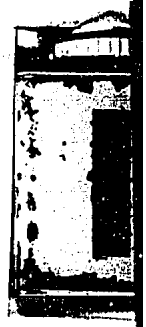
6. Ibid., Vol VIII, No 7, 1 Apr 53 (Article signed by Istvan Kulin)

7. Ibid., Vol VIII, No 8, 16 Apr 53 (Article signed by Istvan Kulin)

8. Ibid., Vol VIII, No 9, 1 May 53 (Article signed by Istvan Kulin)

9. Termeszet es Technika, Vol CXII, No 3, Mar 53 (Article signed by Gyorgy Szakacs)

[Appended figures follow.]



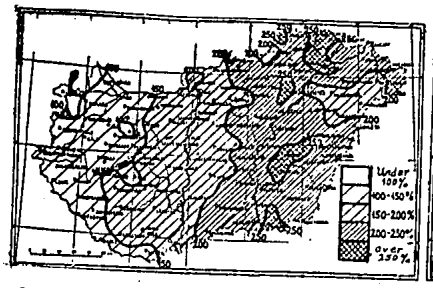


FIGURE 1. VOLUME OF PRECIPITATION IN PERCENT OF AVERAGES SEPTEMBER-NOVEMBER 1952

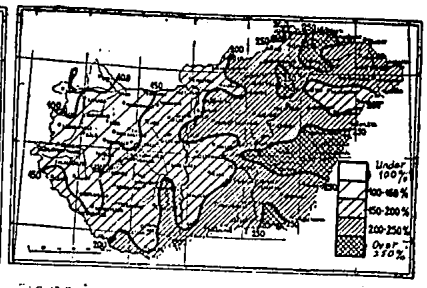


FIGURE 2. VOLUME OF PRECIPITATION IN PERCENT OF AVERAGES SEPTEMBER-DECEMBER 1952

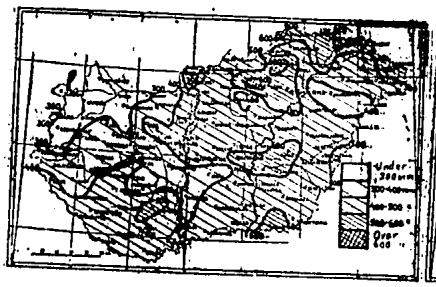


FIGURE 3. DISTRIBUTION OF PRECIPITATION 1 SEPTEMBER 1952 - 10 JANUARY 1953

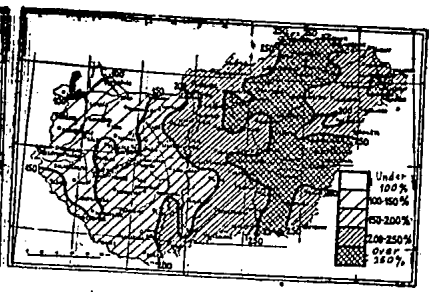
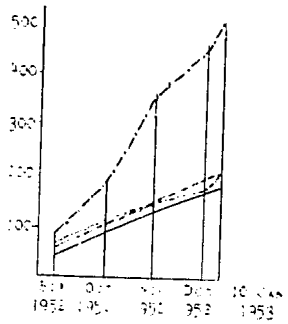


FIGURE 4. VOLUME OF PRECIPITATION IN PERCENT OF AVERAGES 1 SEPTEMBER 1952 - 10 JANUARY 1953



— — — TOTAL PRECIPITATION AT SZARVAS
——— PRECIPITATION AVERAGES AT SZARVAS
- - - - - TOTAL PRECIPITATION AT MAGYAROVAR
– – – – PRECIPITATION AVERAGES AT MAGYAROVAR

- E N D -